

NOT ALL SOLENOIDS ARE CREATED EQUAL - AS CLEARLY DEMONSTRATED IN THE COMPARISON LIST BELOW

Expecting to pay more (not less) for the superiority of a Pulsoid, then be ready for a surprise [Please see below]

IN THE RED COLUMN WE HAVE THE WON PULSOID X-10

IN BLUE WE HAVE EVERY US BRAND OF GENERIC SOLENOID

ITEM & PICTURE	DESCRIPTION
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AVERAGE PRICE

Pulsoids (ONLY SOLD COMPLETE) - Cost £145

Generic solenoids (SOLD BARE)

Cost COMPLETE

£245

	<p>Pulsoids are sold complete as shown below. They are the only purpose made nitrous/fuel solenoids in the world. Designed and manufactured to be pulsed in pairs at the highest possible frequency for accuracy and smooth power delivery. CNC machined from aircraft quality billet alloy for minimum weight and maximum heat dissipation. Supplied with stainless steel fittings to suit a range of applications. With a lifetime guarantee and no need for servicing, the initial extra cost is soon recovered due to the unequalled reliability.</p>
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	<p>Generic solenoids (as supplied in ALL other brands of nitrous kits) are sold in bare form and are 'barely' suitable for 'fixed hit' nitrous use and are certainly far from adequate for pulsed progressive use. Made from multiple stainless steel parts they are heavy, conduct heat badly (which leads to coils burning out) and wear rapidly, which leads to a need for regularly servicing to avoid failure. Although initial cost 'appears' to be low, the actual cost of a COMPLETE solenoid is much higher than a Pulsoid and cost even more with every service kit that has to be bought or worse still a full replaced when they inevitably fail, which they do very quickly.</p>
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<p>£95</p>

Body

Body

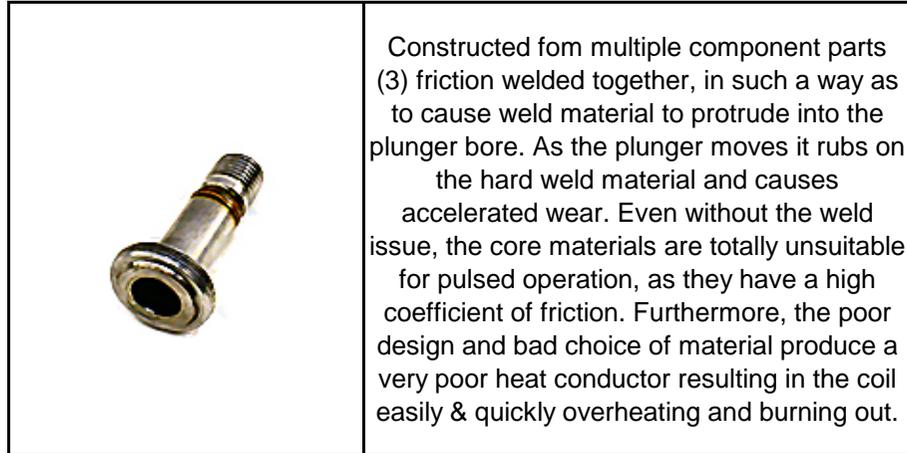
	<p>The X-10 has a ONE PIECE integral body, core and outer casing CNC machined from aircraft quality billet alloy (for minimum weight & maximum heat dissipation), which has a high lustre anodised finish.</p>
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	<p>Generic solenoid bodies are roughly machined from stainless steel which makes them extremely heavy (compared to a Pulsoid body) and also means they have very limited heat dissipation capability.</p>
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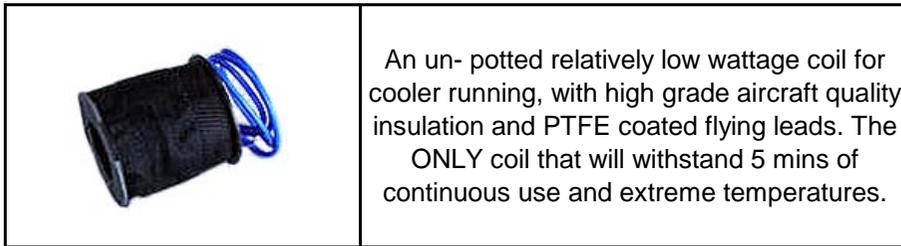
Solenoid core



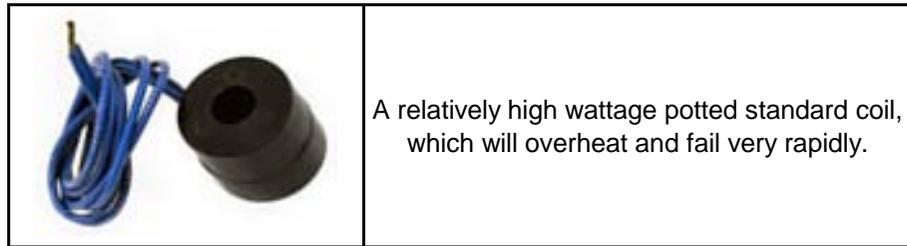
Solenoid core



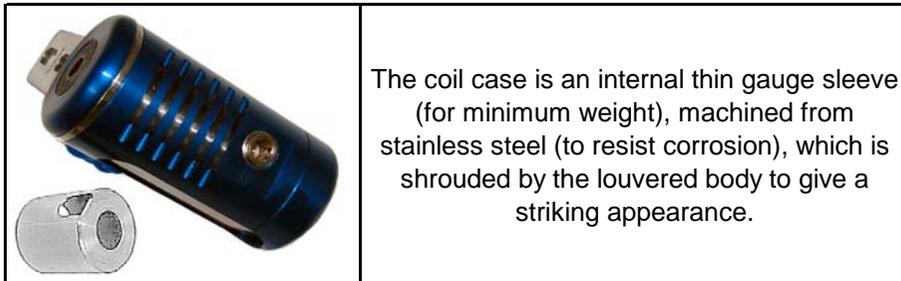
Coil



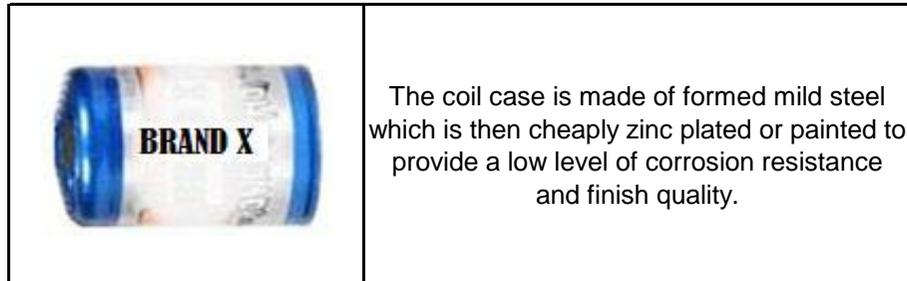
Coil



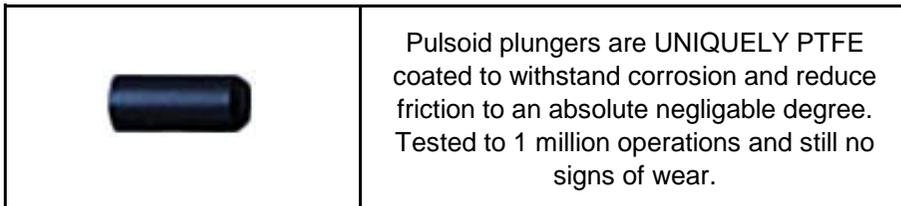
Coil case



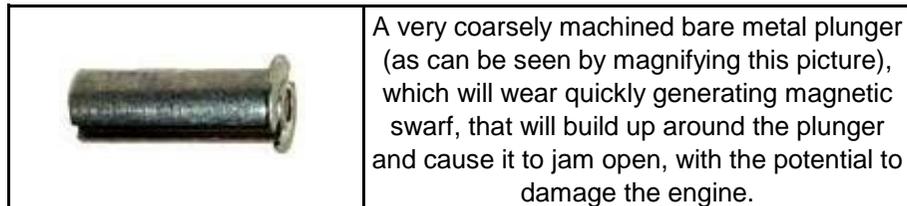
Coil case



Plunger



Plunger



Outlet seat

	<p>The outlet seat is CNC machined from a thermoplastic material and is adjustable. Both these features are unique to WON Pulsoids.</p> <p>The effect of the seat being made from a thermoplastic removes the risk of damaging the plunger seal. The adjustability of the seat provides the facility to optimise the plunger response, which then makes them more responsive to higher pulsed frequencies, which results in the power delivery being smoother.</p>
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Outlet seat

	<p>In generic solenoids the outlet seat is machined into the stainless steel body, which is fixed and extremely harsh on soft plunger seals, leading to accelerated wear and premature failure.</p>
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Inlet fitting (INCLUDED IN PRICE)

	<p>The Pulsoid inlet fitting is an integral filter housing, which is specifically designed and CNC machined from bright stainless steel, for durability and corrosion resistance.</p>
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Inlet fitting (NOT INCLUDED IN PRICE)

	<p>Very basic generic brass fitting, usually WITHOUT a filter but at best with a screen mesh stuck on the end.</p>
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ADD £8

Filter (INCLUDED IN PRICE)

	<p>All nitrous Pulsoids are supplied as standard with a filter which is made from the best filter material known to man (sintered UHMW polyethylene), which traps virtually all dirt particles big enough to cause a leak, within its maze of flow paths without seriously affecting the overall flow. Being white it is easy to see when the filter is contaminated with dirt and reaching the end of its life. It can then easily and cheaply be replaced.</p>
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Filter (NOT INCLUDED IN PRICE)

	<p>None supplied with bare solenoid. At best a very basic coarse filter mesh is supplied in some kits, but to achieve filtration levels remotely close to as good as provided by a WON Pulsoid (as STANDARD), a separate filter unit would be required and even then the filtration would not be as good. To make matters worse the only add on filters that are available have a large internal volume which allows the nitrous liquid to vaporise to gas, causing a loss of performance and increasing the need to purge/waste nitrous.</p>
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**IN-LINE
FILTER
OPTION
ADD £69**

Inlet adaptor (INCLUDED IN PRICE)



The Pulsoid inlet adaptor doubles as the retainer for the integral filter housing and an adaptor for the hose connection. Like the filter housing it is specifically designed and CNC machined from bright stainless steel, for durability and corrosion resistance.

Inlet adaptor

Part of the basic inlet fitting above.

Outlet fitting (INCLUDED IN PRICE)



The Pulsoid outlet fitting doubles as the metering jet holder and an adaptor for the hose connection. Like the inlet fittings it is specifically designed and CNC machined from bright stainless steel, for durability and corrosion resistance.

Outlet fitting (NOT INCLUDED IN PRICE)



Very basic brass adaptor

ADD £8

Mounting bracket (INCLUDED IN PRICE)



Laser cut from polished stainless steel, our Pulsoid brackets are designed not to mark the Pulsoid and to be quick and easy to adjust to ANY position. They are also pre-scored for easier bending (when required) and have dual mounting bolt options.

Mounting bracket (NOT INCLUDED IN PRICE)



Generic solenoid brackets are very basic being made from sheradised mild steel, with no thought to anything other than the lowest manufacturing cost.

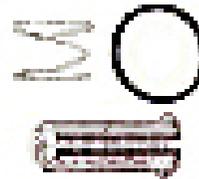
ADD £10

Service kit (NOT NEEDED/OFFERED)

NOT REQUIRED DUE TO DIRT RESISTANT PLUNGER SEAL MATERIAL & PTFE COATED PLUNGER. TESTED TO 1,000,000 (ONE MILLION) OPERATIONS WITH NO SIGNS OF WEAR OR FAILURE.

Pulsoids are designed NOT to wear and therefore NEVER need servicing (UNLIKE ANY other solenoid) and as a consequence will last many 100's if not many 1,000's of operations longer than ANY OTHER solenoid in the world. We don't even list a service kit in our product range, so you'll save £100's in no time at all compared to purchasing a generic solenoid.

Service kit (usually **ESSENTIAL** in under 6 months use)



Generic solenoids are GUARANTEED TO FAIL, which is why they sell more service kits than they sell solenoids - THINK ABOUT THAT FOR A MOMENT!!!! Just adding the cost of ONE service kit pushes the total price of owning such a solenoid to the total shown below but you can be sure that you'll need to buy many more than one kit, especially if you pulse them.

ADD £55

TOTAL COST (MAXIMUM) £145

TOTAL COST (MINIMUM)

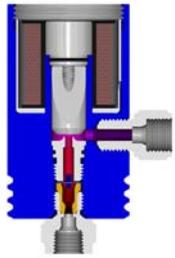
£245

CONCLUSION

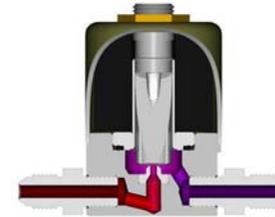
The WON X-10 Pulsoid delivers longer life, greater reliability, higher density nitrous flow and is more responsive, more accurate, lighter, higher quality and more stylish, PLUS IT'S SURPRISINGLY MUCH CHEAPER than a generic solenoid.

CONCLUSION

Generic solenoids as sold by ALL other nitrous companies, are basic, crude, heavy, unsuitable for pulsing 'correctly', cause an obstruction to flow, cause a loss in nitrous density, are extremely unreliable, wear out rapidly and look unsightly, PLUS THEY ARE SURPRISINGLY MUCH MORE EXPENSIVE than an X-10 Pulsoid.



Pulsoid [section view]



Generic solenoid [section view]



WON Pulsoid compared to generic solenoid [exploded view]